



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,441	02/18/2004	Terrance J. O'Neill	077017-9014-00	3433
23409	7590	06/28/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			BERHANU, SAMUEL	
			ART UNIT	PAPER NUMBER
			2838	
DATE MAILED: 06/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/781,441

Applicant(s)

O'NEILL, TERRANCE J.

Examiner

Samuel Berhanu

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/18/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 07/07/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:  
“the Bridge 162” described on page 12 lines 4, 6 and 16 is not in the drawing .  
Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: In Figure 3, element 125A. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2838

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 6, 14 and 18 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Claims 6 and 4, on lines 1-4 and claim 18 on line 8, recite the circuit "Selectively supplies electrical power to the battery-powered electronic device". The specification does not disclose any control circuitry for selectively supplying power and it is not clear what is meant by this limitation. As those skilled in the art aware, parallel power sources are at the same voltage, and each source will provide electrical power when connected. For examination purposes, "selectively supplying electrical power" is interpreted to read on any parallel arrangement of power sources since each source will "selectively" supply power when connected.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-11, 13-20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Neill et al. (US 6,507,170).

Regarding claim 1, O'Neill et al. disclose in Figures 1 and 2 a battery arrangement for supplying electrical power from batteries to a battery powered electronic device (Column 1, lines 43-67), the battery arrangement comprising: a first

Art Unit: 2838

receptacle (30A); a second receptacle (30B), each of the first and second receptacles being adapted to receive at least one battery (12A, 12B, 12C); and an electrical circuit connecting the first and second receptacles in a parallel electrical arrangement (62,60) and extending between the first and second receptacles and the battery powered electronic device (32).

Regarding claim 2, O'Neill et al. disclose in Figures 1 and 2 the battery arrangement, wherein a battery (12A) of the first receptacle (30A) is removeable during operation of the battery-powered electronic device (32), and wherein the battery arrangement continuously supplies electrical power to the battery-powered electronic device during removal of a battery of the first receptacle. Note that since the batteries are arranged in parallel the device (32) can draw power from one battery during the failure or removal of the other battery (inherent feature).

Regarding Claim 3, O'Neill et al. disclose in Figures 1 and 2 the battery arrangement, wherein a battery of the second receptacle (30B) is removable during operation of the battery-powered electronic device, and wherein a battery of the first receptacle (30A) supplies electrical power to the battery-powered electronic device when a battery of the second receptacle (30B) is removed and a battery of the second receptacle supplies electrical power to the battery-powered electronic device when a battery of the first receptacle (30A) is removed.

Regarding claim 5, O'Neill et al. disclose the battery arrangement, where in the first and second receptacles (30A, 30 B) sized to receive AA batteries (Column 3, lines 55-57).

Regarding 6, O'Neill et al. disclose the battery arrangement, wherein each of the first (30A) and second battery receptacles (30B) is adapted to support at least two batteries (12A, 12B), and wherein the electrical circuit selectively supplies electrical power to the battery-powered electronic device from batteries of the first receptacle and batteries of the second receptacle. Note that since the batteries are arranged in parallel the device (32) can selectively draw power. See 112, 2<sup>nd</sup> rejection above.

Regarding 7, O'Neill et al. disclose the battery arrangement, wherein the battery-powered electronic device includes a clock having a changeable time (32), and wherein a battery of the first receptacle and a battery of the second receptacle are replaceable without interrupting the time of the clock (Column 3, lines 34-36).

Regarding claim 8, O'Neill et al. disclose the battery arrangement, wherein each of a battery of the first receptacle (30A) and a battery of the second receptacle (30B) has a useful life, and wherein the electrical circuit supplies electrical power to the battery-powered electronic device from batteries of the first and second receptacles for a period of time to increase a useful life of a battery of the first receptacle and a useful life of a battery of the second receptacle (Column 4, lines 1-9).

Regarding claim 9, O'Neill et al. disclose the battery arrangement, further comprising a third receptacle (30C) adapted to receive at least one battery (12C), the electrical circuit further connecting the third receptacle in a parallel electrical arrangement with the first and second receptacles (60,62).

Regarding claim 10, O'Neill et al. disclose in Figures 1 and 2 a battery arrangement for supplying electrical power from batteries to a battery-powered

Art Unit: 2838

electronic device (Column 1, lines 43-67), the battery arrangement comprising: a first receptacle (30A); a second receptacle (30B), each of the first and second receptacles being adapted to receive batteries (12A, 12B, 12C); and an electrical circuit (62,60,16, 18) electrically connecting the first and second receptacles and the battery-powered electronic device for transmitting electrical power to the battery-powered electronic device, the transmission of electrical power to the battery-powered electronic device being uninterruptible during replacement of a battery of the first receptacle and during replacement of a battery of the second receptacle. Note that since the batteries are arranged in parallel the device (32) can draw power from one battery during the failure or removing of the other battery (uninterruptable power).

Regarding claim 11, O'Neill et al. disclose in Figures 1 and 2 the battery arrangement, wherein a battery of the second receptacle supplies electrical power to the battery-powered electronic device during replacement of a battery of the first receptacle and a battery of the first receptacle supplies electrical power to a battery-powered electronic device during replacement of a battery of the second receptacle. Note that since the batteries are arranged in parallel the device (32) can be drawn power from one of the battery only during the failure or removing of the other battery (inherent feature).

Regarding claim 13, O'Neill et al. disclose the battery arrangement, where in the first and second receptacles (30A, 30 B) sized to receive AA batteries ( Column 3, lines 55-57).

Regarding 15, O'Neill et al. disclose in Figures 1 and 2 the battery arrangement, wherein the battery-powered electronic device (32) includes a clock having a changeable time, and wherein the changeable time is uninterrupted during replacement of a battery of the first receptacle and during replacement of a battery of the second receptacle (Column 3, lines 34-36).

Regarding claim 16, O'Neill et al. disclose the battery arrangement, wherein each of a battery of the first receptacle (30A) and a battery of the second receptacle (30B) has a useful life, and wherein the electrical circuit supplies electrical power to the battery-powered electronic device from batteries of the first and second receptacles for a period of time to increase a useful life of a battery of the first receptacle and a useful life of a battery of the second receptacle (Column 4, lines 1-9).

Regarding claim 17, O'Neill et al. disclose the battery arrangement, further comprising a third receptacle (30C) adapted to receive at least one battery (12C), the electrical circuit further connecting the third receptacle in a parallel electrical arrangement with the first and second receptacles (60,62).

Regarding claim 18, O'Neill et al. disclose a battery arrangement for supplying electrical power from batteries to a battery-powered electronic device (Column 1, lines 43-67), the battery arrangement comprising: a first receptacle (30A) a second receptacle (30B), each of the first and second receptacles being adapted to receive batteries (12A, 12B, 12C); and an electrical circuit connecting the first and second receptacles and extending between the first and second receptacles and the power consuming device (62,60) to selectively supply electrical power to the power

consuming device (32) from one of a battery of the first receptacle and a battery of the second receptacle.

Regarding claim 19, O'Neill et al. disclose a battery arrangement, wherein the electrical circuit connects the first and second battery receptacles in a parallel electrical arrangement (62, 60).

Regarding 20, O'Neill et al. disclose a battery arrangement , wherein a battery of the second receptacle (30B) supplies electrical power to the battery-powered electronic device (32) during replacement of a battery of the first receptacle (30A) and a battery of the first receptacle supplies electrical power to the battery-powered electronic device during replacement of a battery of the second receptacle. Note that since the batteries are arranged in parallel the device (32) can draw power from one battery during the failure or removal of the other battery (inherent feature).

Regarding claim 22, O'Neill et al. disclose a battery arrangement, wherein the first and second receptacle (30A, 30 B) sized to receive AA batteries (Column 3, lines 55-57).

5. Claims 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruneau (US 4,607,207).

Regarding Claim 23, Bruneau discloses in Figure 2, a battery arrangement for supplying electrical power from batteries to a battery-powered electronic device, the battery arrangement comprising: a first receptacle (row two, middle battery); a second receptacle (row one, middle battery); a third receptacle (row two, element 11); a fourth receptacle (row one, element 12), the first, second, third, and fourth receptacles being

adapted to receive batteries; and an electrical circuit having a first path (a path through wires 14 and 27 and contact 6, Via the middle batteries form the first and second rows) connecting the first and second receptacles and a second path (a path through wires 14 and 27 and contact 6, Via batteries 11 and 12) electrically connecting the third and fourth receptacles, the first and second paths being in a parallel electrical arrangement and being electrically connected to the battery-powered electronic device.

Regarding Claim 24, Bruneau discloses in Figure 2, wherein when a battery is removed from one of the first receptacle and the second receptacle, the second path (a path through element 12 and 11) electrically connects batteries of the third and fourth receptacles to the battery-powered electronic device (4).

Regarding Claim 25, Bruneau discloses in Figure 2, a third path (a path through a middle battery from the second row and element 12 via wire 14) electrically connecting the first and fourth receptacles and being electrically connected to the battery-powered device, the third path and at least one of the first and second paths being in a parallel electrical arrangement.

Regarding Claim 26, Bruneau discloses in Figure 2, a fourth path (a path through element 11 and a middle battery from the first row) electrically connecting the second and third receptacles and being electrically connected to the battery-powered device, the fourth path and at least one of the first and second paths being in a parallel electrical arrangement.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al. (US 6,507,170) in view of Lund (US, 4,161,568).

Regarding Claims 6 and 14, O'Neill et al. disclose the battery arrangement, wherein each of the first (30A) and second battery receptacles (30B) is adapted to support at least two batteries (12A, 12B), and wherein the electrical circuit selectively supplies electrical power to the battery-powered electronic device from batteries of the first receptacle and batteries of the second receptacle. O'Neil et al do not disclose, the first and second receptacles adapted to support at least two batteries, However, Lund discloses In Figures 1 and 2, the first and second receptacles adapted to support at least two batteries (Column 2, lines 51-61). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify O'Neil et al. battery pack to accommodate more than one battery in order to provide more power to a device.

8. Claims 4,12, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al. (US 6,507,170) in view of Irvin (US 5,973,476).

Regarding claims 4, 12 and 21, O'Neil et al. disclose the claim limitation, except the battery arrangement, comprising an indicator in communication with the first and

Art Unit: 2838

second battery receptacles, the indicator generating an alert when a charge of a battery of the first receptacle is low or when a charge of a battery of the second receptacle is low. However, Irvin discloses in Figure 1, an indicator (23) in communication with the first and second battery receptacles (31a), the indicator generating an alert when a charge of a battery of the first receptacle is low or when a charge of a battery of the second receptacle is low (Column 3, lines 52-67). It would have been obvious to a person having ordinary skill in the art at the time of the invention to add charge indicator means as taught by Irvin in O'Neil et al. battery pack in order to effectively monitor battery status.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Berhanu whose telephone number is 571-272-8430. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2838

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB

 6/27/05

MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800